

DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS

DIRECTOR'S OFFICE

CONSTRUCTION CODE

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(By authority conferred on the director of the department of licensing and regulatory affairs by section 4 of 1972 PA 230, MCL 125.1504, and Executive Reorganization Order Nos. 2003-1, 2008-4 and 2011-4 MCL 445.2011, 445.2025, and 445.2030)

R 408.30701, R 408.30715, R 408.30721, R 408.30730, R 408.30731, R 408.30735, R 408.30758, R 408.30791, and R 408.30792 of the Michigan Administrative Code are amended, R 408.30713, R 408.30724, R 408.30763a, and R 408.30786 are rescinded to the Code as follows:

PART 7. PLUMBING CODE

AMENDMENTS AND ADDITIONS TO BASIC PLUMBING CODE

R 408.30701 Applicable code.

Rule 701. Rules governing the installation, replacement, alteration, relocation, and use of plumbing systems or plumbing materials shall be those contained in the international plumbing code, ~~2012~~**2015** edition, including appendices **A, B, C, D, E, F, G,** and ~~HF~~, except for sections 102.10, 102.11, 103.4, **103.4.1, 106.1.1, 106.1.2**, 106.6.1, 106.6.2, 106.6.3, 107.2.5, 107.2.5.1, 107.2.5.2, 107.2.5.3, 109.2 to 109.7, 312.1.1, **404.2, 404.3**, 602.3 to 602.3.5.1, 608.17 to 608.17.8, ~~708.3.2, 708.3.6~~, 712.3.3.1, 712.3.3.2, 716.1 to 716.4, 717.1 to 717.8, 1106.3, 1106.6, 1301 to 1304.4.2, 1401 to 1403.2.1 and tables ~~4106.2(2)~~, 1106.3, and 1106.6. With the exceptions noted, the code is adopted in these rules by reference. All references to the International Building Code, International Residential Code, International Energy Conservation Code, International Electrical Code, International Mechanical Code, and International Plumbing Code mean the Michigan Building Code, Michigan Residential Code, Michigan ~~Uniform~~ Energy Code, Michigan Electrical Code, Michigan Mechanical Code, and Michigan Plumbing Code respectively. The code is available for inspection at the ~~Okemos~~**Lansing** office of the Michigan department of licensing and regulatory affairs, bureau of construction codes. The code may be purchased from the International Code Council, **through the bureau's website at www.michigan.gov/bcc** ~~500 New Jersey Avenue, N.W., 6th Floor, Washington, D.C. 20001, or from the Michigan Department of Licensing and Regulatory Affairs, Bureau of Construction Codes, 2501 Woodlake Circle, Okemos, Michigan,~~ at a cost as of the time of adoption of these rules of ~~\$71.00~~ **\$76.00** each.

R 408.30715 Permits.

Rule 715. Sections 106.4, 106.5.3, and 106.5.4 of the code are amended to read as follows:
106.4. By whom application is made.

December 21, 2015

(1) Application for a permit shall be made by a plumbing contractor licensed in accordance with ~~pursuant to~~ 2002 PA 733, MCL 338.3511 to 338.3569.

Exceptions:

1. Water service permits.
2. Building sewer and private sewer permits.
3. Minor repair.

(2) A plumbing contractor shall do both of the following:

(a) Be active in the business of serving the public as a plumbing contractor in a county, city, village, or township in this state.

(b) Operate 1 or more branches in this state bearing the same firm name, where a licensed master plumber is in charge and has the responsibility of supervision at each branch. The names of the authorized master plumbers representing a firm shall be on record with the state plumbing board.

(3) To become a plumbing contractor, an applicant shall file an application on a form furnished by the state plumbing board and file with the board at ~~Okemos~~ **Lansing**, Michigan. An incomplete application will be returned to the applicant.

106.5.3. Expiration. Each permit issued by the code official under the provisions of the code shall expire by limitation and become null and void if the work authorized by ~~such~~ **this** permit is not commenced within 180 days from the date of such permit, or if the work authorized by ~~such~~ **this** permit is suspended or abandoned at any time after the work is commenced for a period of 180 days. Before ~~such~~ **this** work may be recommenced, the permit shall be reinstated if the code has not changed. If the code has changed and the work was not started, a new permit shall be first obtained for such work, provided no changes have been made or will be made in the original construction document for ~~such~~ **this** work and provided further that ~~such~~ **the** suspension or abandonment has not exceeded 1 year.

106.5.4. Extensions. Any permittee holding an unexpired permit shall have the right to apply for an extension of the time within which the permittee will commence work under that permit when work is unable to be commenced within the time required by this section for good and satisfactory reasons. The code official shall extend the time for action by the permittee for a period not exceeding 180 days if there is reasonable cause. No permit shall be extended more than once.

R 408.30713 ~~Vertical conductors and leaders~~ **Rescinded.**

~~Rule 713. Section 1106.2 and table 1106.2(1) of the code is amended to read as follows:
1106.2 Vertical conductors and leaders shall be sized for the maximum projected roof area, in accordance with Table 1106.2.~~

TABLE 1106.2
SIZE OF VERTICAL CONDUCTORS AND LEADERS

DIAMETER OF LEADER (inches)*	HORIZONTALLY PROJECTED ROOF AREA (square feet)											
	Rainfall rate (inches per hour)											
	1	2	3	4	5	6	7	8	9	10	11	12
2	2,880	1,440	960	720	575	480	410	360	320	290	260	240
3	8,800	4,400	2,930	2,200	1,760	1,470	1,260	1,100	980	880	800	730

4	18,400	9,200	6,130	4,600	3,680	3,070	2,630	2,300	2,045	1,840	1,675	1,530
5	34,600	17,300	11,530	8,650	6,920	5,765	4,945	4,325	3,845	3,460	3,145	2,880
6	54,000	27,000	17,995	13,500	10,800	9,000	7,715	6,750	6,000	5,400	4,910	4,500
8	116,000	58,000	38,660	29,000	23,200	19,315	16,570	14,500	12,890	11,600	10,545	9,600

For SI: 1 inch = 25.4 mm, 1 square foot = 0.0929 m².

a. Sizes indicated are the diameter of circular piping. This table is applicable to piping of other shapes provided the cross-sectional shape fully encloses a circle of the diameter indicated in this table.

R 408.30721 Required tests.

Rule 721. ~~Section~~**Sections 309.3 and 312.1** of the code ~~is~~**are** amended and section 312.3 is added to read as follows:

309.3. Flood hazard areas subject to high-velocity wave action. Structures located in flood hazard areas subject to high-velocity wave action shall meet the requirements of section 309.2. The plumbing systems, pipes, and fixtures shall not be mounted on or penetrate through walls intended to break away under flood loads.

312.1. Required tests. The permit holder shall make the applicable tests prescribed in sections 312.2 to 312.10.2 to determine compliance with the code. The permit holder shall give reasonable advance notice to the code official when the plumbing work is ready for testing. The equipment, material, power, and labor necessary for the inspection and test shall be furnished by the permit holder and the permit holder shall be responsible for determining that the work will withstand the test pressure prescribed in this rule. All plumbing system piping shall be tested with either water or, for piping systems other than plastic, by air. After the plumbing fixtures have been set and their traps filled with water, the entire drainage system shall be submitted to final tests. The code official shall require the removal of any cleanouts if necessary to ascertain if the pressure has reached all parts of the system.

Exception: Drainage and vent low pressure air tests for plastic piping systems shall be acceptable as prescribed in section 312.3 of the code.

312.3 Drainage and vent air test. An air test shall be made by forcing air into the system until there is a uniform gauge pressure of 5 psi (34.5 kPa) or sufficient to balance a 10-inch (254 mm) column of mercury. This pressure shall be held for a test period of not less than 15 minutes. Any adjustments to the test pressure required because of changes in ambient temperatures or the seating of gaskets shall be made before to the beginning of the test period.

R 408.30724 ~~Piping~~**Rescinded.**

Rule 724. ~~Section 1114.1.4 of the code is amended to read as follows:~~

~~1114.1.4. Discharge piping shall meet the requirements of section 1102.2, 1102.3, or 1102.4 and shall include a gate valve and a full flow check valve. Pipe and fittings shall be the same size as, or larger than, pump discharge tapping.~~

R 408.30730 Sewer required.

Rule 730. Section 701.2 of the code is amended **and section 701.9 is added** to read as follows:

701.2. Sewer required. Every building in which plumbing fixtures are installed and all premises having drainage piping shall be connected to a public sewer, where available, or an approved private sewage disposal system.

701.9. Connections. Direct connection of a steam exhaust, blowoff, or drip pipe shall not be made with the building drainage system. Waste water where discharged into the building drainage system shall be at a temperature not greater than 140°F (60°C). Where higher temperatures exist, approved cooling methods shall be provided.

R 408.30731. Laundries.

Rule 731. ~~Section~~ **Sections 1002.6 and 1003.6** of the code ~~is~~ **are** amended to read as follows:

1002.6. Building traps. Building (house) traps shall be prohibited, except where local conditions necessitate these traps. Building traps shall be provided with a cleanout and a relief vent or fresh air intake on the inlet side of the trap. The size of the relief vent or fresh air intake shall not be less than ½ the diameter of the drain to which the relief vent or air intake connects. The relief vent or fresh air intake shall be carried above grade and shall be terminated in a screened outlet located outside the building.

1003.6. Laundries. Commercial laundries shall be equipped with an interceptor with a wire basket or similar device, removable for cleaning, that prevents passage into the drainage system of solids 0.5 inch (12.7 mm) or larger in size, string, rags, buttons, or other materials detrimental to the public sewage system.

R 408.30735 Hot water supply required.

Rule 735. Section 607.1 of the code is amended to read as follows:

607.1. Where required. (1) In residential occupancies, hot water shall be supplied to all plumbing fixtures and equipment utilized for bathing, washing, culinary purposes, cleansing, laundry, or building maintenance. In nonresidential occupancies, hot water shall be supplied for culinary purposes, cleansing, laundry, or building maintenance purposes. In nonresidential occupancies, hot water or tempered water shall be supplied for bathing and washing purposes. Tempered water shall be supplied through a water temperature limiting device that conforms to ASSE 1070, ~~as referenced in chapter 13 of the code~~, and shall limit the tempered water to a maximum of 110 degrees Fahrenheit (43 degrees Celsius). This provision ~~shall~~ **does** not supersede the requirement for protective shower valves in accordance with section 424.3 of the code.

(2) Tempered water shall be supplied to bathing and hand washing facilities in the occupancies identified in ~~subdivisions (a) to (h) of this subrule~~ **the following** by individual water temperature limiting devices to individual fixtures:

- (a) Elementary schools.
- (b) Child care centers.
- (c) Day care centers.
- (d) Nurseries.
- (e) Adult group homes.
- (f) Adult congregate homes.
- (g) Children's camps.
- (h) At accessible plumbing fixtures.

R 408.30758 Minimum number of fixtures.

Rule 758. Sections 403.1 and 403.3.1 and Table 403.1 of the code are amended to read as follows:

403.1. Minimum number of fixtures. Plumbing fixtures shall be provided for the type of occupancy and in the minimum number shown in Table 403.1. Types of occupancies not shown in Table 403.1 shall be considered individually by the code official. The number of occupants shall be determined in accordance with the Michigan building code. Occupancy classification shall be determined in accordance with the Michigan building code.

Exceptions:

1. The actual number of occupants determined by a supporting affidavit from the owner or agency.
2. Hand washing sinks in food service establishments shall be provided in accordance with regulation no. 553, food establishments, R 285.553.1 to R 285.553.26 of the Michigan department of agriculture **and rural development**.
3. Toilet facilities for public swimming pools shall be provided in accordance with public swimming pools, R 325.2111 to R 325.2199 of the Michigan department of environmental quality.
4. Toilet facilities for child care center, day care center, and nursery school facilities shall be provided in accordance with child day care licensing – child care centers, ~~R 400.5101 to R 400.5940~~ **R 400.8101 to R 400.8840** of the Michigan department of **licensing and regulatory affairs** ~~human services~~.
5. Toilet facilities for children's camps shall be provided in accordance with children's and adult foster care camps, R 400.11101 to R ~~400.11319~~ **400.11413** of the Michigan department of ~~human services~~ **licensing and regulatory affairs**.

403.3.1. Access. The route to the public toilet facilities required by section 403.3 shall not pass through kitchens, storage rooms, or closets. Access to the required facilities shall be from within the building. All routes shall comply with the accessibility requirements of the Michigan building code. The public shall have access to the required toilet facilities at all times that the building is occupied.

TABLE 403.1
MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES^a
(See Sections 403.1.1 and 403.2)

NO.	CLASSIFICATION	OCCUPANCY	DESCRIPTION	WATER CLOSETS (URINALS SEE SECTION 419.2)		LAVATORIES		BATHTUBS/ SHOWERS	DRINKING FOUNTAIN ^{a,f} (SEE SECTION 410.1)	OTHER
				MALE	FEMALE	MALE	FEMALE			
1	Assembly	A-1 ^d	Theaters and other buildings for the performing arts and motion pictures	1 per 125	1 per 65	1 per 200			1 per 500	1 service sink
		A-2 ^d	Nightclubs, bars, taverns, dance halls, and buildings for similar purposes	1 per 40	1 per 40	1 per 75			1 per 500	1 service sink
			Restaurants, banquet halls and food courts	1 per 75	1 per 75	1 per 200			1 per 500	1 service sink
		A-3 ^d	Auditoriums without permanent seating, art galleries, exhibition halls, museums, lecture halls, libraries, arcades, and gymnasiums	1 per 125	1 per 65	1 per 200			1 per 500	1 service sink
			Passenger terminals and transportation facilities	1 per 500	1 per 500	1 per 750			1 per 1,000	1 service sink
			Places of worship and other religious services.	1 per 150	1 per 75	1 per 200			1 per 1,000	1 service sink
		A-4	Coliseums, arenas, skating rinks, pools, and tennis courts for indoor sporting events and activities	1 per 75 for the first 1,500 and 1 per 120 for the remainder exceeding 1,500	1 per 40 for the first 1,520 and 1 per 60 for the remainder exceeding 1,520	1 per 200	1 per 150		1 per 1,000	1 service sink

		A-5 ⁱ	Stadiums, amusement parks, bleachers, and grandstands for outdoor sporting events and activities	1 per 75 for the first 1,500 and 1 per 120 for the remainder exceeding 1,500	1 per 40 for the first 1,520 and 1 per 120 for the remainder exceeding 1,520	1 per 200	1 per 150		1 per 1,000	1 service sink
		A-5	Outdoor educational and municipal venues not larger than 3,000 spectators	1 per 125	1 per 65	1 per 200	1 per 150		1 per 1,000	1 service sink
2	Business	B	Buildings for the transaction of business, professional services, other services involving merchandise, office buildings, banks, light industrial, and similar uses	1 per 25 for the first 50 and 1 per 50 for the remainder exceeding 50		1 per 40 for the first 80 and 1 per 80 for the remainder exceeding 80			1 per 100	1 service sink ^g
3	Educational	E	Educational facilities	1 per 50		1 per 50			1 per 100	1 service sink
4	Factory and industrial	F-1 and F-2	Structures in which occupants are engaged in work fabricating, assembly , or processing of products or materials	1 per 100		1 per 100	(see Section 411)		1 per 400	1 service sink
5	Institutional	I-1	Residential care	1 per 10		1 per 10	1 per 8		1 per 100	1 service sink
		I-2	Hospitals, ambulatory nursing home patients, care recipient	1 per room c		1 per room c	1 per 15		1 per 100	1 service sink per floor
			Employees, other than residential care ^b	1 per 25		1 per 35			1 per 100	
			Visitors, other than residential care	1 per 75		1 per 100			1 per 500	

		I-3	Prisons ^b	1 per cell	1 per cell	1 per 15	1 per 100	1 service sink
			Reformatories, detention centers, and correctional centers ^b	1 per 15	1 per 15	1 per 15	1 per 100	1 service sink
			Employees ^b	1 per 25	1 per 35	-	1 per 100	-
		I-4	Adult day care and child care	1 per 15	1 per 15	1	1 per 100	1 service sink

NO.	CLASSIFICATION	OCCUPANCY	DESCRIPTION	WATER CLOSETS (URINALS SEE SECTION 419.2)		LAVATORIES		BATHTUBS/ SHOWERS	DRINKING FOUNTAIN ^{c,f} (SEE SECTION 410.1)	OTHER
				MALE	FEMALE	MALE	FEMALE			
6	Mercantile	M	Retail stores, service stations, shops, salesrooms, markets, and shopping centers	1 per 500		1 per 750		-	1 per 1000	1 service sink ^g
7	Residential	R-1	Hotels, motels, boarding houses (transient)	1 per sleeping unit		1 per sleeping unit		1 per sleeping unit		1 service sink
		R-2	Dormitories, fraternities, sororities, and boarding houses (not transient)	1 per 10		1 per 10		1 per 8	1 per 100	1 service sink
		R-2	Apartment house	1 per dwelling unit		1 per dwelling unit		1 per dwelling unit	-	1 kitchen sink per dwelling unit; 1 automatic clothes washer connection per 20 dwelling units
		R-3	Congregate living facilities with 16 or fewer persons	1 per 10		1 per 10		1 per 8	1 per 100	1 service sink

		R-3	One- and two-family dwellings 1 - and -2 family dwellings and lodging houses with 5 or fewer guestrooms	1 per dwelling unit	1 per dwelling unit	1 per dwelling unit	-	1 kitchen sink per dwelling unit; 1 automatic clothes washer connection per dwelling unit
		R-4	Congregate living facilities with 16 or fewer persons	1 per 10	1 per 10	1 per 8	1 per 100	1 service sink
8	Storage ^h	S-1 S-2	Structures for the storage of goods, warehouses, storehouse, and freight depots. Low and Moderate Hazard.	1 per 100	1 per 100	See Section 411	1 per 1,000	1 service sink

- a. The fixtures shown are based on 1 fixture being the minimum required for the number of persons indicated or any fraction of the number of persons indicated. The number of occupants shall be determined by the *International Building Code*.
- b. Toilet facilities for employees shall be separate from facilities for inmates or patients.
- c. A single-occupant toilet room with 1 water closet and one lavatory serving not more than 2 adjacent patient sleeping units shall be permitted where such room is provided with direct access from each patient room and with provisions for privacy.
- d. The occupant load for seasonal outdoor seating and entertainment areas shall be included when determining the minimum number of facilities required.
- e. The minimum number of required drinking fountains shall comply with Table 403.1 and Chapter 11 of the International Building Code.
- f. Drinking fountains are not required for an occupant load of 15 or fewer.
- g.. For business and mercantile occupancies with an occupant load of 15 or fewer, service sinks shall not be required.
- h. Structures not designed for occupants or as an employee's regular working area, are not required to have toilet facilities.
- i. Water closets and lavatories in adjacent school buildings may be included in the required minimum fixture count, if they are located within a 500-foot walking distance to the stadium. Signage for the location of these rest rooms is required.**

R 408.30763a ~~Tempered water for public hand washing facilities.~~ **Rescinded.**

Rule 763a. Section 416.5 is added to the code to read as follows:

~~416.5. Tempered water for public hand washing facilities. Tempered water shall be delivered from lavatories and group wash fixtures located in public toilet facilities in accordance with section 607.1. Tempered water shall be delivered through an approved water temperature limiting device that conforms to ASSE 1070 or CSA B125.3.~~

R 408.30786 ~~Sizing of secondary drains~~**Rescinded.**

Rule 786. Section 1108.3 of the code is amended to read as follows:

~~1108.3. Sizing of secondary drains. Secondary, or emergency, roof drain systems shall be sized in accordance with section 1106 based on the rainfall rate for which the primary system is sized in tables 1106.2 and 1106.3. Scuppers shall be sized to prevent the depth of ponding water from exceeding that for which the roof was designed as determined by section 1101.7. Scuppers shall not have an opening dimension of less than 4 inches (102 mm). The flow through the primary system shall not be considered when sizing the secondary roof drain system.~~

R 408.30791 Definitions.

Rule 791. (1) Section 202 of the code is amended to amend the definition of code official and add the definitions of the act and plumbing contractor.

(2) "Act" means 1972 PA 230, MCL 125.1501 and known as the Stille-DeRossett-Hale single state construction code act.

(3) "Code official" means the person appointed and employed by a governmental subdivision charged with the administration and enforcement of the state code or codes and registered in accordance with the requirements of 1986 PA 54, MCL 338.2301 to 338.2313.

(4) "Plumbing contractor" means a person who is licensed in accordance with 2002 PA 733, MCL 338.3511 to 338.3569.

~~"Plumbing systems" includes the water distribution pipes; plumbing fixtures and traps; water treating or water using equipment; soil, waste, and vent pipes; and building drains; in addition to their respective connections, devices and appurtenances with a structure or premises; and water services, sanitary and storm sewers serving such structure or premises.~~

R 408.30792 Food utensils, dishes, pots and pans sinks.

Rule 792. Section 802.1.8 of the code is amended to read as follows:

802.1.8. Food utensils, dishes, pots and pans sinks. Sinks used for the washing, rinsing, or sanitizing of utensils, dishes, pots, pans, or service ware where used in the preparation, serving, or eating of food shall discharge indirectly through an air gap or an air break to the drainage system.

Exception: ~~When required, a hydromechanical grease interceptor connected to the washing sink, or wash compartment shall be directly connected to the drainage system~~
When required, a washing sink or wash compartment shall be directly connected to a hydromechanical grease interceptor. The outlet of a hydromechanical grease interceptor shall directly connect to the sanitary drainage system.